

# Blue-Lyte™

## Aqueous Solution of Sodium Chloride

### Blue-Lyte™ solutions:

- are disinfecting solutions,
- are cost-effective solutions to produce,
- are produced in a simple process by an electrolytic cell,
- can be produced for use in medical, institutional, industrial and commercial applications,
- can be produced with a controlled pH and concentration of Free Available Chlorine (FAC), and
- are produced with low energy costs from water and salt.

### ACTIVE INGREDIENT:

Hypochlorous Acid .....0.046%

OTHER INGREDIENTS: ..... 99.954%

TOTAL: ..... 100.000%

Contains **500** ppm Free Available Chlorine (FAC)

<p><b>KEEP OUT OF REACH OF CHILDREN</b> <b>CAUTION</b> <b>See Back Panel for Precautionary Statements</b></p>
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### Manufactured by:

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EPA Reg. #

EPA Est. # 90626-FL-001

Blue-Lyte® must be used within 30 days after being produced *OR product must be tested with chlorine test kit provided by Blue Science Solutions, LLC. DO NOT USE PRODUCT when Chlorine concentration is below 450ppm.*

Store in a cool area and do not break the seal on the bottle until ready for use.

### Date produced:

**\*\*This product is not meant to be used as a terminal sterilant / high level disinfectant on any surface or instrument that 1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body or (2) contacts intact mucous membranes but which does not ordinarily penetrate the bold barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high level disinfection. \*\***

FIRST AID	
If in Eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes for 15-20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact the National Pesticide Information Center (NPIC) 1- 800-858-7378 for emergency medical treatment information.	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear protective eyewear and goggles when dispensing or using this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

#### Physical or Chemical hazards

**Blue-Lyte™** is not compatible with other chemicals such as ammonia, acids and hydrogen peroxide.

**Blue-Lyte™** is an activated aqueous solution of sodium chloride produced by passing weak salt brine through an electrolytic cell and temporarily changing the properties of the salt water into a powerful oxidizing agent exhibiting antimicrobial properties. **Blue-Lyte™** is produced at a near neutral pH (6.0-7.0) where the predominant antimicrobial agent is Hypochlorous acid, an efficient and efficacious specie of chlorine. Hypochlorous acid kills bacteria\*.

The properties of **Blue-Lyte™** can be precisely controlled by manipulating power to the electrolytic cell, brine flow rate through the cell and the conductivity of the brine in the cell. **Blue-Lyte™** can be applied as a liquid or spray.

**Blue-Lyte™** freezes at 32° F and boils at 212° F. The anolyte is a colorless, aqueous solution, with a slight chlorine or ozone odor. After production, **Blue-Lyte™** must be stored in a closed, plastic container (HDPE preferred) in a cool, dark area away from direct sunlight. The **Blue-Lyte™** product must be used within 30 days of production.

\*Salmonella Enterica, Staphylococcus aureus, Staphylococcus aureus MRSA, Escherichia-Coli O157:H7, Listeria Monocytogenes, Pseudomonas aeruginosa.\*

## DISINFECTION APPLICATIONS

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling

#### **\*\*Hard, Non-Porous Surface Disinfection\*\***

**To [Clean and] Disinfect [and Deodorize] Hard, Non-Porous Surfaces:** For heavily soiled areas, a preliminary cleaning is required. Apply [*Wipe, Spray or Dip*] **Blue-Lyte™ at 500 ppm** FAC (full strength) to hard, non-porous surfaces with a cloth, wipe, mop or sponge. Treated surfaces must remain wet for 10 minutes. Allow surfaces to air dry. Food contact surfaces such as counters and tables must be rinsed with potable water. Do not use on utensils, glasses or dishes.

<b>Pathogen</b>	<b>Contact Time</b>
Salmonella enterica ATCC 10708	10 minutes
Staphylococcus aureus ATCC 6538	10 minutes
Staphylococcus aureus MRSA ATCC 33591	10 minutes
Swine Influenza virus (H1N1) ATCC VR 99	10 minutes
Escherichia-Coli O157: H7 ATCC 35150	10 minutes
Listeria Monocytogenes ATCC 19111	10 minutes
Pseudomonas aeruginosa	10 minutes

#### **Claims:**

- + One step cleaner/disinfectant
- + Aids in the reduction of cross-contamination between treated surfaces
- + Assures proper strength, product effectiveness and standardizes technique
- + Formulated for bacteria fighting
- + Bactericide – or – Bactericidal
- + Bathroom disinfectant
- + Kitchen disinfectant
- + Nursery disinfectant
- + Athletic facility disinfectant
- + Cleans and disinfects
- + Cleans and disinfects hard, non-porous surfaces
- + Cleans, deodorizes and disinfects
- + Deodorizes by killing the germs that cause odors
- + Disinfecting formula
- + Disinfects and deodorizes by killing bacteria and their odors
- + Disinfects hard, non-porous surfaces (throughout the (insert use site(s) from tables 1-5)
- + Easy and convenient disinfecting (throughout the (insert the use site(s) from tables 1-5)
- + Easy one-step cleaning and disinfecting
- + Effective against – or – Kills (insert any organism(s) from table above)
- + Effective against – or – Kills a wide range of bacteria including Staphylococcus aureus MRSA, Salmonella enterica, Pseudomonas aeruginosa, Escherichia-Coli O157:H7, Listeria Monocytogenes
- + Effectively disinfects hard, non-porous, environmental surfaces
- + Eliminates odors at their source; bacteria
- + Eliminates – or – Reduces odors caused by bacteria
- + Fight(s) – and/or – Kill(s) – and/or – Effective against Salmonella enterica

- + Fight(s) – and/or – Kill(s) – and/or – Effective against Staphylococcus aureus MRSA
- + Fight(s) – and/or – Kill(s) – and/or – Effective against Pseudomonas aeruginosa
- + Fight(s) – and/or – Kill(s) – and/or – Effective against Escherichia-Coli O157:H7
- + Fight(s) – and/or – Kill(s) – and/or – Effective against Listeria Monocytogenes
- + Fight(s) – and/or – Kill(s) – and/or – Effective against Swine Influenza virus (H1N1)
- + Fight(s) – and/or – Stops – and/or – Prevent(s) cross-contamination between treated hard non-porous surfaces (in your (list any use site))
- + Kills bacteria
- + Kills many common bacteria
- + Kills odor-causing bacteria
- + Kills – or – Effective against bacteria
- + Multi-purpose disinfectant
- + One-step cleaner and disinfectant
- + One-step disinfectant cleaner designed for general cleaning and disinfecting hard, non-porous environmental surfaces in health care facilities – or – (insert use site(s) from table 1)
- + Pseudomonocidal
- + Ready-to-use hospital disinfectant
- + Staphylocidal + The answer to your disinfection needs
- + The quick-and/or easy and/or –convenient way to disinfect
- + This product controls cross-contamination between treated hard, non-porous surfaces
- + This product meets AOAC efficacy testing requirements – or standards for hospital disinfection
- + Use in public – or – common places where bacteria may be of concern on hard, non-porous surfaces
- + Use where control of the hazards of cross-contamination between treated surfaces is of Prime importance

#### **GENERAL CLAIMS**

- + Convenient
- + Easy to handle
- + For general use
- + For use on bathroom surfaces
- + For use on nursery surfaces
- + For use in athletic facilities
- + Suitable for hospital use
- + For use on athletic equipment
- + Will not harm (insert surface material(s) from table 5)
- + Will not harm hard, non-porous inanimate environmental surfaces
- + Will not harm titanium-coated, medical grade stainless steel

## **Medical Uses**

### **USE SITES:**

Ambulances – or – Emergency Medical Transport Vehicles  
Anesthesia Rooms – or Areas  
Assisted Living – or – Full Care Nursing Homes  
CAT Laboratories  
Central Service Areas  
Central – Supply Rooms – or – Areas  
Critical Care Units – or – CCUs  
Dialysis Clinics  
Emergency Rooms – or – ERs  
Health Care Settings – or Facilities Home Health Care Settings Hospitals  
Hospital Kitchens  
Intensive Care Units – or ICUs  
Laboratories Medical Clinics Medical Facilities  
Medical – or – Physician's – or Doctor's Offices  
Newborn – or – Neonatal Nurseries  
Nursing – or – Nurses' Stations  
Orthopedics  
Outpatient Clinics Patient Restrooms Patient Rooms  
Pediatric Examination Rooms – or – Areas  
Pharmacies  
Physical Therapy Rooms – or – Areas Radiology – or – X-Ray Rooms – or – Areas Surgery Rooms –  
or – Operating rooms – or – Ors

### **SURFACES** Bedpans

Exam – or – examination tables  
External surfaces of medical equipment – or – medical equipment surfaces  
External surfaces of ultrasound transducers  
Gurneys  
Hard, non-porous environmental hospital – or medical surfaces Hospital – or – patient bed railings – or  
– linings – or – frames IV poles  
Patient chairs  
Plastic mattress covers  
Reception counters – or – desks – or – areas  
Stretchers  
Wash basins  
Wheelchairs

## Dental Uses

### USE SITES:

Dental Operatories  
Dentist – or – Dentist's offices

### SURFACES: Dental countertops

Dental operatory surfaces  
Dentist – or – dental chairs  
Hard, non-porous environmental dental surfaces  
Light lens covers  
Reception counters – or – desks – or – areas

## Veterinary Uses

### USE SITES

Animal Housing Facilities  
Animal Life Science Laboratories  
Animal - or -Pet Grooming Facilities  
Kennels  
Lab Animal Facilities  
Livestock – and/or- Poultry Facilities  
Pet Areas  
Pet Shops – or- Stores  
Small Animal Facilities Veterinary Clinics - or -Facilities Veterinary - or - Animal Hospitals

### SURFACES

Animal equipment automatic feeders  
Cages  
External surfaces of veterinary equipment  
Feed racks  
Fountains  
Hard, non-porous environmental veterinary surfaces  
Pens  
Reception counters - or - desks - or – areas  
Stalls  
Troughs  
Veterinary care surfaces  
Watering appliances

### **Animal Premises:**

Remove all animals and feed from the premises, vehicles and enclosures. Remove all litter, droppings and manure from the floors, walls and surfaces of barns, pens, stalls, chutes and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap and/or detergent and rinse with water. Apply **Blue-Lyte™** (full strength) at 500 ppm FAC (Saturate surfaces with solution for 10 minutes). Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used for removing litter and manure. After application, ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and watering stations with soap or detergent and rinse with potable water before reuse.

## **Food Service**

### **Food Processing and Service Establishments:**

Before using this product, food products and packaging materials must be removed from the area or carefully protected.

USE SITES (Food contact surfaces must be rinsed with potable water after application of disinfectant)

Cafeterias

Commercial - or - Institutional Kitchens

Delis

Fast Food Chains - or - Restaurants Food Preparation and Processing Areas Food Processing and

Fabrication Areas

Food Service - or - Processing Establishments

Food Serving Areas

Other Food Service Establishments

Restaurants

School Kitchens

SURFACES (Food contact surfaces must be rinsed with potable water after application of disinfectant)

Surfaces where disinfection is required

Exterior surfaces of Appliances

Exterior surfaces of Dish racks

Drain boards

Exterior surfaces of Food Cases

Exterior surfaces of Food Trays Exterior surfaces of Freezers Hoods

Exterior surfaces of Microwaves

Outdoor furniture (excluding wood frames and upholstery) Exterior surfaces of Ovens

Exterior surfaces of Refrigerators

Salad bar sneeze guards Exterior surfaces of Stoves -or – Stovetops

## **Miscellaneous / General Uses**

### USE SITES

Airplanes Blood Banks Boats

Bowling Alleys

Butcher Shops Chillers Churches Colleges

Correctional Facilities

Cruise Lines

Day Care Centers

Dormitories

Factories Funeral Homes Grocery Stores

Gymnasiums - or - Gyms

Health Club Facilities

Hotels

Industrial Facilities

Laundromats Laundry Rooms Locker Rooms

Manufacturing Plants - or - Facilities

Military Installations

Motels

Naval facilities

Oil and gas applications  
Oil platforms  
Pipelines associated with oil & gas production  
Preschool Facilities  
Public Areas  
Public Transportation  
Recreational Centers - or - Facilities  
Restrooms - or - Restroom Areas  
School Buses Schools Shelters  
Ships  
Shipyards  
Shower Rooms  
Storage Rooms - or - Areas  
Supermarkets Trains Universities Wineries Yachts  
Ambulances – or – Emergency Medical Transport Vehicles  
Anesthesia Rooms – or – Areas  
Assisted Living – or – Full Care Nursing Homes  
CAT Laboratories  
Central Service Areas  
Central Supply Rooms – or – Areas  
Home Health Care Settings  
Hospital Kitchens  
Intensive Care Units – or – ICUs  
Laboratories  
Physician's – or – Doctor's Offices  
Outpatient Clinics  
Patient Restrooms  
Patient Rooms  
Pediatric Examination Rooms – or – Areas  
Pharmacies  
Plastic mattress covers  
Reception counters - or - desks - or - areas  
Wash basins  
Wheelchairs  
Dental - or - Dentist's Offices

#### SURFACE

Bathroom fixtures Bath tubs  
Behind and under counters  
Behind and under sinks  
Booster chairs  
Cabinets  
Ceilings  
Ceiling Fans  
Cellular - or - wireless - or - mobile - or - digital phones  
Chairs  
Computer keyboards  
Computer monitors Counters - or - countertops Cribs  
Desks  
Diaper - or - infant changing tables  
Diaper pails  
Dictating equipment surfaces

Doorknobs  
Exterior - or - external toilet surfaces  
Exterior - or - external urinal surfaces  
Faucets  
Floors  
Garbage - or - trash cans  
Grocery store - or - supermarket carts  
Hampers Hand railings Headsets Highchairs Lamps Linoleum  
Other telecommunications equipment surfaces  
Playpens  
Shelves  
Showers - or - shower stalls  
Sinks  
Stall doors  
Tables Telephones Tiled Walls Toilet Rims Toilet Seats  
Towel Dispensers  
Toys  
Vanity tops - or – vanities

#### SURFACE MATERIALS

Baked enamel  
Chrome  
Common hard, non-porous household - or - environmental surfaces  
Glazed ceramic tile  
Laminated surfaces  
Plastic laminate  
Glazed porcelain enamel  
Stainless steel Synthetic marble Vinyl tile  
Dental countertops  
Dentist - or - dental chairs  
Hard, non-porous environmental dental surfaces  
Light lens covers  
Reception counters – or desks – or areas.

#### Not Recommended For Use On - or - Avoid Contact With:

Aluminum  
Brass  
Chipped enamel  
Clear plastic Clothes Copper Fabrics  
Gold  
Natural marble Painted surfaces Paper surfaces Natural rubber Sealed granite Silver  
Unfinished wood  
Wood

## OIL AND GAS APPLICATIONS – Non-Public Health

**Frac Water** – For typical water treatment, mix 5 US gallons of **Blue-Lyte™** with 995 US gallons of frac water to 2.5 ppm FAC to mitigate and retard the growth of non-public health microorganisms such as anaerobic bacteria, aerobic bacteria and sulfate reducing bacteria to protect fracturing fluids, polymers and gels.

**Sour Wells** – For typical well treatment, slug dose 168 US gallons at 500 ppm FAC of **Blue-Lyte™** into the well bore on a daily or weekly basis to control unwanted non-public health microorganisms, reduce hydrogen sulfide gas and restore well integrity.

**Produced Waters** – For typical produced water treatment, mix 21 US gallons of **Blue-Lyte™** with 979 US gallons of produced water to 10.5 ppm FAC, to retard the growth of non-public health microorganisms.

**Heater Treaters, Hydrocarbon Storage Facilities & Gas Storage Wells** – For typical storage facility treatment, mix 126 gallons **Blue-Lyte™** at 500 ppm FAC into the water phase of the mixed hydrocarbon/water system to retard the growth of non-public health microorganisms, control the formation of hydrogen sulfide and reduce corrosion of the storage tanks.

**Water Flood Injection Water** – For typical water flood injection water treatment, mix 21 US gallons of **Blue-Lyte™** with 979 US gallons of injection water to 10.5 ppm FAC to retard the growth of non-public health microorganisms and control slime in pipelines.

**Oil and Gas Transmission Lines** – For typical transmission line treatment, slug dose 420 US gallons at 500 ppm FAC of **Blue-Lyte™** into the transmission line on a daily or weekly basis to control unwanted non-public health microorganisms, such as SRB's, reduce microbiologically influenced corrosion (MIC) and remove the slime and associated sessile bacteria which can degrade pipeline integrity.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

### For Household/residential use packages:

**Pesticide Storage:** Store in original, tightly closed container in an area inaccessible to children or persons unfamiliar with its use. Keep tightly closed until ready to use. Reclose tightly after each use. Store in original, unopened containers at or below 25 C (77 F) and above 0 C (32 F).

**Pesticide Disposal:** Non-refillable container. Do not reuse or refill this container. Wrap container and put in trash or offer for recycling if available.

### For industrial and commercial use packages:

#### Small Packages (1 gallon or less):

**Pesticide Storage:** Store in original, tightly closed container in an area inaccessible to children or persons unfamiliar with its use and away from food or feed. Keep tightly closed until ready to use. Reclose tightly after each use. Store in original, unopened containers at or below 25 C (77F).

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Non-refillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

#### Pails, Drums and IBCs:

**Pesticide Storage:** Store in original, tightly closed container in an area inaccessible to children or persons unfamiliar with its use and away from food or feed. Keep tightly closed until ready to use. Reclose tightly after each use. Store in original, unopened containers at or below 25 C (77F).

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** REFILLABLE CONTAINER. Refill this container with hypochlorous acid only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Then offer for recycling, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.